INDEX TO TRANSACTIONS VOLUME 186

(Plus reference to Articles and Editorials published in *Journal of Petroleum Technology* in 1949)

A

ALCORN, I. W.: Editorial, Jan. JPT

Application of the Capillary Pressure Method for the Determination of Oil Recovery, by Walter Rose (Tech. Note), 326

Application of the LaPlace Transformation to Flow Problems in Reservoirs, by A. F. van Everdingen and W. Hurst, 305

ARCHIE, G. E.: *Discussion of the Relation Between Electrical Resistivity and Brine Saturation in Reservoir Rocks*, 324

B

BABSON, E. C.: *Discussion of Estimation of Reserves and Water Drive from Pressure and Production History*, 97

BAILEY, C. R., DUNLAP, HENRY F., BILHARTZ, HARRELL L., and SHULER, ELLIS: *The Relation Between Electrical Resistivity and Brine Saturation in Reservoir Rocks*, 259

Banausia — or the Greeks Had a Word for It, by Reese H. Taylor, Mar. JPT

BEACH, WALTER G.: *Travelling Block Deflector in Drilling Operations* (Tech. Note), Nov. JPT

Behavior of Binary, Ternary, and Multicomponent Systems at States Similar to Those Encountered in Condensate Fields, by B. H. Sage and W. N. Lacey, 143

BERGMAN, W. E., FISHER, H. B. and CARPENTER, P. G.: *Factors Involved in Removal of Sulphate from Drilling Muds by Barium Carbonate*, 197

BESSE, C. P. and OSBORNE, G. W.: *Gulf of Mexico Floating Drilling Tender*, 87

BILHARTZ, HARRELL L., SHULER, ELLIS, BAILEY, C. R., and DUNLAP, HENRY F.: *The Relation Between Electrical Resistivity and Brine Saturation in Reservoir Rocks*, 259

BILLHEIMER, J. S., REAMER, H. H. and SAGE, B. H.: *Multiple Condensed Phases in the Decane-Tetralin-Bitumen System*, 279

BILLHEIMER, J. S., SAGE, B. H. and LACEY, W. N.: *Multiple Condensed Phases in the N-Pentane-Tetralin-Bitumen System*, 283

BILLHEIMER, J. S., YUNDT, C. G., SAGE, B. H. and LACEY, W. N.: *Multiple Condensed Phases in the Methane-Decane-Tetralin-Bitumen System*, 265

BINCKLEY, C. W., BURGESS, F. R., and HAYMAKER, E. R.: *Method of Establishing a Stabilized Back-Pressure Curve for Gas Wells Producing from Reservoirs of Extremely Low Permeability*, 71

Bottom Hole Flow Surveys for Determination of Fluid and Gas Movements in Wells, by C. R. Dale, 205

BOYD, JAMES: *Technology and Low Grade Mineral Deposits* (Editorial) Nov. JPT

BRANTLY, J. E.: *Suggested National Oil Policy* (Editorial), Sept. JPT

BRESTON, JOSEPH and HUGHES, RICHARD V.: *Relation Between Pressure and Recovery in Long Core Water Floods*, 100

BROKAW, ALBERT D.: *Correction of Gas Volumes for Compressibility and Temperatures*, 248

BROWNSCOMBE, E. R., and COLLINS, FRANCIS: *Estimation of Reserves and Water Drive from Pressure and Production History*, 92

BROWNSCOMBE, E. R., KIESCHNICK, W. F., JR., and MILLER, CHARLES C.: *A Calculation of the Effect of Production Rate Upon Ultimate Recovery by Solution Gas Drive*, 235

BRUCE, W. A. and ROSE, WALTER: *Evaluation of Capillary Character in Petroleum Reservoir Rock*, 127

BRYANT, F. S.: *Some Aspects of Unitization—California Oil and Gas Fields*, Feb. JPT

BULNES, A. C.: *Discussion of Theoretical Generalizations Leading to the Evaluation of Relative Permeability*, 125

BURTCHAELL, E. P.: *Reservoir Performance of a High Relief Pool*, 171

BURGESS, F. R., HAYMAKER, E. R., and BINCKLEY, C. W.: *Method of Establishing a Stabilized Back-Pressure Curve for Gas Wells Producing from Reservoirs of Extremely Low Permeability*, 71

C

Calculation of the Effect of Production Rate upon Ultimate Recovery by Solution Gas Drive, by Charles C. Miller, E. R. Brownscombe, and W. F. Kieschnick, Jr., 235

CALHOUN, JOHN C., JR., LEWIS, MAURICE, JR., and NEWMAN, R. C.: *Experiments on the Capillary Properties of Porous Solids*, 189

CALHOUN, JOHN C., JR., and LOPER, RAMOND G.: *The Effect of Well Spacing and Drawdown on Recovery from Internal Gas Drive Reservoirs*, 211

Capillary pressures and capillarity:
Calculation of permeability from, 39
Evaluation of character, 127
Experiments on retention of water, 189
Measurement by mercury, 39

Capillary Pressures — Their Measurement Using Mercury and the Calculation of Permeability Therefrom, by W. R. Purcell, 39

CARPENTER, P. G., BERGMAN, W. E. and FISHER, H. B.: *Factors Involved in Removal of Sulphate from Drilling Muds by Barium Carbonate*, 197

CARTER, D. V.: *Function of Petroleum Engineering Departments and Their Relationship to Management*, Sept. JPT

CLARK, J. B.: *A Hydraulic Process for Increasing the Productivity of Wells*, 1

CLARK, ROSCOE C., JR.: *Well Cementing at Low Temperatures* (Tech. Note) 328

COLLINS, FRANCIS and BROWNSCOMBE, E. R.: *Estimation of Reserves and Water Drive from Pressure and Production History*, 92

Conservation
of oil and gas in Pickton field, 55

COOKE, JOHN T. and ELKINS, LINCOLN F.: *Pilot Gas Injection — Its Conduct and Criteria for Evaluation*, 180

Coring
core recording, 33

Core Recorder, by Clark Millison, 33

Correction of Gas Volumes for Compressibility and Temperatures, by Albert D. Brokaw, 248

D

DALE, C. R.: *Bottom Hole Flow Surveys for Determination of Fluid and Gas Movements in Wells*, 205

Developments in the Petroleum Field in Canada and Their Impact on the Economy of Canada, by H. H. Hewetson, Mar. JPT

Directional Drilling — Trespass to Technique (Editorial), by Howard C. Pyle, Oct. JPT

DOLL, H. G.: *Introduction to Induction Logging and Application to Logging of Wells Drilled with Oil Base Mud*, 148

Drilling
equipment, for offshore operation, 87
equipment, semi-automatic, 27
muds, removal of sulphate from, 197
tenders, 87

DUNLAP, HENRY F., BILHARTZ, HARRELL L., SHULER, ELLIS, and BAILEY, C. R.: *The Relation Between Electrical Resistivity and Brine Saturation in Reservoir Rocks*, 259

E

Effects of Transient Conditions in Gas Reservoirs, by D. T. MacRoberts, 36

Effect of Well Spacing and Drawdown on Recovery from Internal Gas Drive Reservoirs, by Raymond G. Loper and John C. Calhoun, Jr., 211

Electrical Computer for Solving Phase Equilibrium Problems, by M. Muskat and J. M. McDowell, 291

Electric logging
effect of brine saturation, 259
electrochemical component, 17
induction logging, 148
resistivity relationships, 14
S. P. curves, analysis, 17

ELFRINK, E. B., SANDBERG, C. R. and POLLARD, T. A.: *New Compressibility Correlation for Natural Gase and Application to Estimates of Gas-In-Place*, 219

ELKINS, LINCOLN F. and COOKE, JOHN T.: *Pilot Gas Injection—Its Conduct and Criteria for Evaluation*, 180

ELKINS, L. E.: Editorial, Feb. JPT

ELKINS, L. E.: *A Preface to the Dues Referendum* (Editorial), Apr. JPT

ELKINS, L. E.: Editorial, Mar. JPT

ELKINS, L. E.: *Vote Yes on Dues Increase* (Editorial), May JPT

Engineering Profession and the Socialization of Industry, by L. E. Young, Nov. JPT

Estimation of Reserves and Water Drive from Pressure and Production History, by E. R. Brownscombe and Francis Collins, 92

Evaluation of Capillary Character in Petroleum Reservoir Rock, by Walter Rose and W. A. Bruce, 127

Experiments on the Capillary Properties of Porous Solids, by John C. Calhoun, Jr., Maurice Lewis, Jr., and R. C. Newman, 189

Factors Involved in Removal of Sulphate from Drilling Muds by Barium Carbonate, by W. E. Bergman, H. B. Fisher and P. G. Carpenter, 197

F

FISHER, H. B., CARPENTER, P. G., and BERGMAN, W. E.: *Factors Involved in Removal of Sulphate from Drilling Muds by Barium Carbonate*, 197

FITTING, RALPH U., JR.: *Discussion of Pilot Gas Injection — Its Conduct and Criteria for Results*, 188

FITZGERALD, P. E.: *Discussion of a Hydraulic Process for Increasing the Productivity of Wells*, 7

Formation fracture, 1

Fundamental Forces Involved in the Use of Oil Well Packers, by Jack D. Webber, 271

Functon of Petroleum Engineering Departments and Their Relationship to Management, by D. V. Carter, Sept. JPT

G

Gas
back-pressure testing of wells, 71
compressibility correlation for, 219
conservation in Pickton field, 55
correction of volumes for compressibility and temperature, 248
determination of movement in wells, 205
hydrates, 66, 83
injection, 180
reservoirs, effects of transient conditions in, 37
solution gas drive, 235

Gas Hydrates of Carbon Dioxide—Methane Mixture, by Carl H. Unruh and Donald L. Katz, 83

GLENN, A. H. and GRAHAM, J. E.: *Outline of Weather and Wave Forecasting Techniques*, 49

GRAHAM, J. E. and GLENN, A. H.: *Outline of Weather and Wave Forecasting Techniques*, 49

Gravity drainage, 171

Gulf of Mexico Floating Drilling Tender, by C. P. Besse and G. W. Osborne, 87

GUYOD, HERBERT: *Discussion of a Quantitative Analysis of the Electrochemical Component of the S. P. Curve*, 25

GUSTAFSON, J. D.: *Recent Canadian Oil Developments*, Dec. JPT

H

HAWKINS, WALLACE: *Oil and Gas Conservation*, 1949, Jun. JPT

HAYMAKER, E. R., BINCKLEY, C. W., and BURGESS, F. R.: *Method of Establishing a Stabilized Back-Pressure Curve for Gas Wells Producing from Reservoirs of Extremely Low Permeability*, 71

HEWETSON, H. H.: *Developments in the Petroleum Field in Canada and Their Impact on the Economy of Canada*, Mar. JPT

HORRER, PAUL L.: *Wave Forces Computed for a Typical Offshore Drilling Site*, 299

HUGHES, RICHARD V. and BRESTON, JOSEPH N.: *Relation Between Pressure and Recovery in Long Core Water Floods*, 100

HURST, W. and VAN EVERDINGEN, A. F.: *The Application of the Laplace Transformation to Flow Problems in Reservoirs*, 305

Hydrates
carbon dioxide-methane mixtures, 83
methane, 66

Hydraulic Process for Increasing the Productivity of Wells, by J. B. Clark, 1

Hydrocarbon Mixtures
computor for equilibrium problems, 291
phase behavior, 143, 265, 279, 283

I

Induction logging, 148

Introduction to Induction Logging and Application to Logging of Wells Drilled with Oil Base Mud, by H. G. Doll, 148

K

KATZ, DONALD L. and KOBAYASHI, RIKI: *Methane Hydrate at High Pressure*, 66

KATZ, DONALD L. and UNRAH, CARL H.: *Gas Hydrates of Carbon Dioxide—Methane Mixture*, 83

KAVELER, H. H.: *More Banausia* (Editorial), Dec. JPT

KELLER, W. O. and MORSE, R. A.: *Some Examples of Fluid Flow Mechanism in Limestone Reservoirs*, 224

KIESCHNICK, W. F., JR., MILLER, CHARLES C., and BROWNSCOMBE, E. R.: *A Calculation of the Effect of Production Rate Upon Ultimate Recovery by Solution Gas Drive*, 235

KOBAYASHI, RIKI and KATZ, DONALD L.: *Methane Hydrate at High Pressure*, 66

L

LACEY, W. N. BILLHEIMER, J. S., and SAGE, B. H.: *Multiple Condensed Phases in the N-Pentane-Tetralin-Bitumen System*, 283

LACEY, W. N., BILLHEIMER, J. S., YUNDT, C. G., and SAGE, B. H.: *Multiple Condensed Phases in the Methane-Decane-Tetralin-Bitumen System*, 265

LACEY, W. N. and SAGE, B. H.: *Behavior of Binary, Ternary, and Multicomponent Systems at States Similar to Those Encountered in Condensate Fields*, 143

LEWIS, MAURICE, JR., NEWMAN, R. C., and CALHOUN, JOHN C., JR.: *Experiments on the Capillary Properties of Porous Solids*, 189

Liquid Fuels from Coal and Oil Shales, by George Roberts, Jr. and Paul R. Schultz, Sept. JPT

LIVERMORE, GEORGE P.: *Place of the Engineer in the Drilling Industry*, Apr. JPT

LOPER, RAYMOND G. and CALHOUN, JOHN C., JR.: *The Effect of Well Spacing and Drawdown on Recovery from Internal Gas Drive Reservoirs*, 211

M

MACROBERTS, D. T.: *Effects of Transient Conditions in Gas Reservoirs*, 36

MCDOWELL, J. M. and MUSKAT, M.: *An Electrical Computer for Solving Phase Equilibrium Problems*, 291

Mercury injection
to determine capillary pressures, 39

Meteorology
application to offshore operation, 49

Method of Embedding Large Cores in Plastic for Fluid Flow Studies, by Penn. State Coll. Pet. and Nat. Gas Div., Aug. JPT

Middle Eastern Oil and Its Importance to the World, by John R. Suman, Jan. JPT

MILLER, CHARLES C., BROWNSCOMBE, E. R., and KIESCHNICK, W. F., JR.: *A Calculation of the Effect of Production Rate upon Ultimate Recovery by Solution Gas Drive*, 235

MILLISON, CLARK: *The Core Recorder*, 33

MOORE, CARL A.: *Preparation of Lantern Slide Copy*, Sept. JPT

More Banausia (Editorial), by H. H. Kaveler, Dec. JPT

MORSE, R. A. and KELLER, W. O.: *Some Examples of Fluid Flow Mechanism in Limestone Reservoirs*, 224

MUSKAT, MORRIS: *Discussion of Estimation of Reserves and Water Drive from Pressure and Production History*, 98

MUSKAT, MORRIS: *Production Research—Present and Future*, Jul. JPT

MUSKAT, M. and MCDOWELL, J. M.: *Electrical Computer for Solving Phase Equilibrium Problems*, 291

Method of Establishing a Stabilized Back-Pressure Curve for Gas Wells Producing from Reservoirs of Extremely Low Permeability, by E. R. Haymaker, C. W. Binckley, and F. R. Burgess, 71

Multiple Condensed Phases in the Decane-Tetralin-Bitumin System, by J. S. Billheimer, H. H. Reamer and B. H. Sage, 279

Multiple Condensed Phases in the Methane-Decane-Tetralin-Bitumen System, by J. S. Billheimer, C. G. Yundt, B. H. Sage and W. N. Lacey, 265

Multiple Condensed Phases in the N-Pentane-Tetralin-Bitumen System, by J. S. Billheimer, B. H. Sage and W. N. Lacey, 283

Methane Hydrate at High Pressure, by Riki Kobayashi and Donald L. Katz, 66

N

New Compressibility Correlation for Natural Gases and Application to Estimates of Gas-in-Place, by E. B. Elfrink, C. R. Sandberg, and T. A. Pollard, 219

NEWMAN, R. C., CALHOUN, JOHN C., JR., and LEWIS, MAURICE, JR.: *Experiments on the Capillary Properties of Porous Solids*, 189

O

Oceanography
application to offshore operation, 49, 299

Oil and Gas Conservation, 1949, by Wallace Hawkins, June JPT

Oil base mud
use with induction logging, 148

OSBORNE, G. W. and BESSE, C. P.: *Gulf of Mexico Floating Drilling Tender*, 87

Outline of Weather and Wave Forecasting Techniques, by A. H. Glenn and J. E. Graham, 49

P

Packers
fundamentals involved in use, 271
requirements for formation fracture, 3

PARSONS, C. P.: *Discussion of a Hydraulic Process for Increasing the Productivity of Wells*, 7

PATNODE, H. W.: *Relationship of Drilling Mud Resistivity to Mud Filtrate Resistivity*, 14

Penn State Coll. Pet. and Nat. Gas Div., Method of Embedding Large Cores in Plastic for Fluid Flow Studies, Aug. JPT

Performance of the Ten Section Oil Field, by W. Tempelaar Lietz, 251

Permeability
calculation from capillary pressures, 39
distribution, use of in water flood calculations, 9
relative, evaluation of, 111

Permeability Distribution in Water Flood Calculations, by W. E. Stiles, 9

Pickton field, Texas, 55

Pilot Gas Injection — Its Conduct and Criteria for Evaluation, by Lincoln F. Elkins and John T. Cooke, 180

Place of the Engineer in the Drilling Industry, by George P. Livermore, Apr. JPT

POLLARD, T. A., ELFRINK, E. B., and SANDBERG, C. R.: *A New Compressibility Correlation for Natural Gases and Application to Estimates of Gas-In-Place*, 219

Preface to the Dues Referendum (Editorial), by L. E. Elkins, Apr. JPT

Preparation of Colored Lantern Slides, by G. Zuloaga, Sept. JPT

Preparation of Lantern Slide Copy, by Carl A. Moore, Sept. JPT

Pressure
relation to recovery in water floods, 100
use of pressure history in reserve estimation, 92

Private Financing of Oil Producing Properties, by C. L. Rice, Jr., Jan. JPT

Production of Oil Under Unitization in Wertz Dome Field, Wyoming, by E. A. Swendenborg, 163

Production Research—Present and Future, by Morris Muskat, July JPT

PURCELL, W. R.: *Capillary Pressures — Their Measurement Using Mercury and the Calculation of Permeability Therefrom*, 39

PYLE, HOWARD C.: *Directional Drilling—Trespass to Technique* (Editorial), Oct. JPT

Q

Quantitative Analysis of the Electrochemical Component of the S. P. Curve, by M. R. J. Wyllie, 17

R

REAMER, H. H., SAGE, B. H., and BILLHEIMER, J. S.: *Multiple Condensed Phases in the Decane-Tetralin-Bitumen System*, 279

Recent Canadian Oil Developments, by J. D. Gustafson, Dec. JPT

REISTLE, CARL E., JR.: *Reservoir Engineering and Conservation* (Editorial), Jun. JPT

Relation between Electrical Resistivity and Brine Saturation in Reservoir Rocks, by Henry F. Dunlap, Harrell L. Bilhartz, Ellis Shuler and C. R. Bailey, 259

Relation between Pressure and Recovery in Long Core Water Floods, by Joseph N. Breston and Richard V. Hughes, 100

Relationship of Drilling Mud Resistivity to Mud Filtrate Resistivity, by H. W. Patnode, 14

Reserves
estimation of, 92
gas, estimation, compressibility, correlation, 219

Reservoir Engineering and Conservation (Editorial), by Carl E. Reistle, Jr., June JPT

Reservoir performance
gravity drive type, 171
limestone reservoirs, examples, 224
Pickton field, 55
Ten Section field, 251
Wertz Dome field, 163

Reservoir Performance of a High Relief Pool, by E. P. Burtchaell, 171

Resistivities
of drilling mud, 14
relation to brine saturation, 259
of mud filtrates, 14

RICE, C. L., JR.: *Private Financing of Oil Producing Properties*, Jan. JPT

ROBERTS, GEORGE, JR. and SCHULTZ,, PAUL R.: *Liquid Fuels from Coal and Oil Shales*, Sept. JPT

ROSE, WALTER: *Application of the Capillary Pressure Method for the Determination of Oil Recovery* (Tech. Note), 326

ROSE, WALTER: *Discussion of Capillary Pressures, Their Measurement Using Mercury and the Calculation of Permeability Therefrom*, 46

ROSE, WALTER: *Theoretical Generalizations Leading to the Evaluation of Relative Permeability*, 111

ROSE, WALTER and BRUCE, W. A.: *Evaluation of Capillary Character in Petroleum Reservoir Rock*, 127

ROSE, WALTER D., and WYLLIE, M. R. J.: *Discussion of The Relation Between Electrical Resistivity and Brine Saturation in Reservoir Rocks*, 325

ROSE, WALTER and WYLLIE, M. R. J.: *Theoretical Description of Wetting Liquid Relative Permeability* (Tech. Note), Sept. JPT

RYDER, HARRY M.: *Discussion of Relation Between Pressure and Recovery in Long Core Water Floods*, 109

S

SAGE, B. H., BILLHEIMER, J. S. and REAMER, H. H.: *Multiple Condensed Phases in the Decane-Tetralin-Bitumen System*, 279

SAGE, B. H. and LACEY, W. N.: *Behavior of Binary, Ternary, and Multicomponent Systems at States Similar to those Encountered in Condensate Fields*, 143

SAGE, B. H., LACEY, W. N., and BILLHEIMER, J. S.: *Multiple Condensed Phases in the N-Pentane-Tetralin-Bitumen System*, 283

SAGE, B. H., LACEY, W. N., BILLHEIMER, J. S., and YUNDT, C. G.: *Multiple Condensed Phases in the Methane-Decane-Tetralin-Bitumen System*, 265

SANDBERG, C. R., POLLARD, T. A., and ELFRINK, E. B.: *A New Compressibility Correlation for Natural Gases and Application to Estimates of Gas-In-Place*, 219

SAUNDERS, G. E.: *Discussion of Factors Involved in Removal of Drilling Muds by Barium Carbonate*, 203

SCHULTZ, PAUL R. and ROBERTS, GEORGE, JR.: *Liquid Fuels from Coal and Oil Shales*, Sept. JPT

SELLS, H. R.: *Discussion of Method of Establishing a Stabilized Back-Pressure Curve for Gas Wells Producing from Reservoirs of Extremely Low Permeability*, 82

Semi-Automatic Power Operated Drilling Equipment, by M. E. True and B. L. Stone, 27

SHULER, ELLIS, BAILEY, C. R., DUNLAP, HENRY F., and BILHARTZ, HARRELL L.: *The Relation Between Electrical Resistivity and Brine Saturation in Reservoir Rocks*, 259

SIMPSON, R. E., SMITH, J. W., YUST, C. S. and WELSH, J. R.: *A Study of Oil and Gas Conservation in the Pickton Field*, 55

SMITH, J. W., YUST, C. S., WELSH, J. R. and SIMPSON, R. E.: *A Study of Oil and Gas Conservation in the Pickton Field*, 55

SOLLIDAY, A. L.: *When Do We Need a Synthetic Fuel Industry?* Oct. JPT

Some Aspects of Our Future Mineral Supplies, by W. E. Wrather, Feb. JPT

Some Aspects of Unitization — California Oil and Gas Fields, by F. S. Bryant, Feb. JPT

Some Examples of Fluid Flow Mechanisms in Limestone Reservoirs, by W. O. Keller and R. A. Morse, 224

STILES, W. E.: *Use of Permeability Distribution in Water Flood Calculations,* 9

STONE, B. L. and TRUE, M. E.: *Semi-Automatic Power Operated Drilling Equipment,* 27

Study of Oil and Gas Conservation in the Pickton Field, by J. R. Welsh, R. E. Simpson, J. W. Smith and C. S. Yust, 55

Suggested National Oil Policy (Editorial), by J. E. Brantly, Sept. JPT

SUMAN, JOHN R.: *Middle Eastern Oil and its Importance to the World,* Jan. JPT

SUTER, HANS H.: *We the Banausians* (Editorial), July JPT

SWEDENBORG, E. A.: *Production of Oil Under Unitization in Wertz Dome Field, Wyoming,* 163

T

TAYLOR, REESE H.: *Banausia -- or the Greeks Had a Word for It,* Mar. JPT

Technology and Low Grade Mineral Deposits (Editorial), by James Boyd, Nov. JPT

TEMPELAAR, LIETZ W.: *The Performance of the Ten Section Oil Field,* 251

Theoretical Description of Wetting Liquid Relative Permeability (Tech. Note), by Walter Rose and M. R. J. Wyllie, Sept. JPT

Theoretical Generalizations Leading to the Evaluation of Relative Permeability, by Walter Rose, 111

THORNTON, OWEN: *Valuation of Relative Permeability* (Tech. Note), 329

Travelling Block Deflector in Drilling Operations (Tech. Note), by Walter G. Beach, Nov. JPT

TRUE, M. E. and STONE, B. L.: *Semi-Automatic Power Operated Drilling Equipment,* 27

U

UNRUH, CARL H. and KATZ, DONALD L.: *Gas Hydrates of Carbon Dioxide—Methane Mixture,* 83

Valuation of Relative Permeability (Tech. Note), by Owen Thornton, 329

V

VAN DYKE, O. W.: *Discussion of Factors Involved in Removal of Sulphate From Drilling Muds,* 203

VAN EVERDINGEN, A. F. and HURST, W.: *The Application of the Laplace Transformation to Flow Problems in Reservoirs,* 305

Vote Yes on Dues Increase (Editorial), by L. E. Elkins, May JPT

W

Water Drive
estimation of, 92

Water flooding
calculations, 9
study by long cores, 100

WATSON, C. P.: *California Post-War Production and Demand,* Feb. JPT

Wave Forces Computed for a Typical Offshore Drilling Site, by Paul L. Horrer, 299

We the Banausians (Editorial), by Hans H. Suter, July JPT

Weather forecasting, 49

WEBBER, JACK C.: *Fundamental Forces Involved in the Use of Oil Well Packers,* 271

Well Cementing at Low Temperatures (Tech. Note), by Roscoe C. Clark, Jr., 328

Well spacing, 211

WELSH, J. R., SIMPSON, R. E., SMITH, J. W. and YUST, C. S.: *A Study of Oil and Gas Conservation in the Pickton Field,* 55

Wertz Dome field, Wyoming, 163

When Do We Need a Synthetic Fuel Industry?, by A. L. Solliday, Oct. JPT

WILLIAMS, MILTON: *Discussion of a Quantitative Analysis of the Electrochemical Component of the S. P. Curve,* 24

WRATHER, W. E.: *Some Aspects of Our Future Mineral Supplies,* Feb. JPT

WYLLIE, M. R. J. and ROSE, WALTER D.: *Discussion of The Relation Between Electrical Resistivity and Brine Saturation in Reservoir Rocks,* 325

WYLLIE, M. R. J.: *A Quantitative Analysis of the Electrochemical Component of the S. P. Curve,* 17

WYLLIE, M. R. J. and ROSE, WALTER: *Theoretical Description of Wetting Liquid Relative Permeability* (Tech. Note), Sept. JPT

Y

YOUNG, L. E.: *Engineering Profession and the Socialization of Industry,* Nov. JPT

YUNDT, C. G., SAGE, B. H., LACEY, W. N., and BILLHEIMER, J. S.: *Multiple Condensed Phases in the Methane-Decane-Tetralin-Bitumen System,* 265

YUST, C. S., WELSH, J. R. SIMPSON, R. E., and SMITH, J. W.: *A Study of Oil and Gas Conservation in the Pickton Field,* 55

Z

ZULOAGA, G.: *Preparation of Colored Lantern Slides,* Sept. JPT ★ ★ ★